FECN11 CWIS 061800

THIRTY DAY FORECAST FOR THE GREAT LAKES FOR JANUARY ISSUED JOINTLY BY THE CANADIAN ICE SERVICE OF ENVIRONMENT CANADA AND THE U.S. NATIONAL ICE CENTER OF THE UNITED STATES ON 06 JANUARY 2004.

Lake Superior

Very much above normal temperature were reported during the last two weeks of December and the first few days of January over the entire Lake Superior area. Very little expansion of the ice coverage occurred during the past 2 weeks.

Forecast ice conditions from January 6th to January 15th.

Below to very much below normal temperature is forecast for the first half of January. As a result moderate to rapid ice growth is expected over the period. New and thin lake ice with spread from the northwestern shore between Grand Marais to Marathon and will reach Isle Royale by the middle of January. The ice closer to shore and the mobile ice in Thunder Bay will be mostly thin and medium lake ice. The consolidated ice in Thunder, Black and Nipigon Bays will thicken to medium and thick lake ice by mid-month. Continued ice growth of new and thin lake ice along the southern shore of Lake Superior with mostly medium and thin with some thick lake ice located around Duluth, the Apostle Islands and Keweenaw Bay. The ice will stretch northward about 5 to 20 miles from the shore by the middle of January. Whitefish Bay will be almost completely covered with thin and some medium lake ice along the shore of the bay by mid-January. Some new and thin lake ice will form in Michipicoten Bay southwards towards Whitefish Bay. The rest of the lake will be open water to ice free.

Forecast ice conditions from January 16th to January 31st.

Generally below normal temperatures will cover the lake during the last half of January except for near to slightly below normal temperatures for the western portion of the lake. By the end of the third week of January, most of Thunder Bay will be consolidated in thick lake ice. By the end of the month, Thunder, Nipigon and Black Bays will also be covered in consolidated thick lake ice. The entire northwestern shore of Lake Superior will be covered in ice and extend off-shore to about 10 to 25 miles by the end of January. Mostly thin and new ice will be present in northwestern Lake Superior with some medium lake ice between Thunder Bay and Isle Royale. The extreme western portion of the lake will be covered in thin and new lake ice with some medium lake ice around the Duluth area. The ice along the southern shore will continue to expand and thicken to thin with some medium lake ice. By the end of January, consolidated medium lake ice will cover the entire Apostle Islands all the way out to Otter Island. Whitefish Bay will be covered with medium lake ice by the end of January with some consolidated medium and thick lake ice along the shore. New and thin lake ice will expand southwestward and southward from Michipicoten Bay by the end of the month. The rest of the lake will be open water.

Lake Huron and Georgian Bay

Very much above normal temperature were reported during the last two weeks of December and the first few days of January over the forecast area. Some thin and new

lake ice has formed in the Ste Mary's River, extreme northwestern Lake Huron, Saginaw Bay, the northeastern costal area of Georgian Bay and the north shore of the North Channel.

Forecast ice conditions from January 6th to January 15th.

Below to much below normal temperatures are forecast for the half of January. The eastern, northern and western portion of the North Channel will be covered in thin and new lake ice at the beginning of the second week of January with areas of consolidated ice in the Ste. Mary's River. By mid-month all of the North Channel will be covered with thin and medium lake ice with areas of consolidated ice in the eastern and western sections. The Ste. Mary's River will be completely consolidated by mid-January. At the same time, ice in the northwestern portion of Lake Huron will continue to expand and thicken to thin and medium lake ice near the Straits of Mackinac. New lake ice will begin to form south of Manitoulin Island westward towards the strait during the second week of January. Most of Saginaw Bay will be covered in thin and medium lake ice with looser ice conditions in the northern portion of the bay. Consolidated ice will form along the southern portion of the bay by mid-January. Elsewhere along the Lake Huron shore, new and thin lake ice will form during the second week of January. Continued expansion of lake ice will occur along the northeastern shore of Georgian Bay to reach thin and medium lake ice by the end of the period with consolidated areas in the small bays. Elsewhere, conditions will be mostly open water.

Forecast ice conditions from January 16th to January 31st.

Below normal temperatures are forecast for the last half of January. By the third week of January, all of the North Channel will be consolidated. Ice south of Manitoulin Island westward to the Straits of Mackinac will continue to expand and thicken. Mostly thin ice will cover the area with medium and thick lake ice in the northwestern portion of the lake near the strait. Consolidated ice will cover the Straits of Mackinac and the adjacent areas by the end of the month. The rest of the coastal area of Lake Huron will continue to have a narrow band of thin lake ice with areas of higher concentration located along the eastern shore. Southern Lake Huron will have a slighty greater area of thin and new lake ice by the end of the month. Ice along northeastern Georgian Bay coast will continue to expand towards the middle of the bay with some new lake ice beginning to form elsewhere along the coastal area of the bay by the end of January. Elsewhere mainly open water.

Lake Erie and Lake St. Clair

Temperatures over the last two weeks of December and the first few days of January were very much above normal. Mainly open water conditions prevailed over the entire area.

Forecast ice conditions from January 6th to January 15th.

Below to much below normal temperatures are forecast for the first half of January. Significant ice growth will occur during the period. New lake ice will begin to form in Lake St Clair during the latter part of the first week of January and will completely cover the

lake with thin and new lake ice by mid-month. Areas of new lake ice will begin to form along the coastal area of the Western Basin during the first week of January and will cover almost the entire basin by the middle of January. New and thin lake ice in Sandusky Bay will become consolidated by mid-month. Areas of new lake ice will begin to form along the northern shore of the lake especially in Long Point Bay. Some patches of new lake ice will form along the southern shore mostly west of Ashtabula by middle of the period. The remainder of the lake will be mostly open water.

Forecast ice conditions from January 16th to January 31st.

Below normal temperatures are forecast for the last half of January. Consolidated ice will form in northern and eastern Lake St Clair with thin lake ice elsewhere during the third week. By the end of the month, most of the lake will be consolidated with medium and thick lake ice. The ice should remain mobile in the southern portion of the lake at the entrance to the Detroit River. The ice in the Western Basin will thicken to thin and medium lake ice and spread into the rest of the western portion of the lake. The ice in the rest of the lake will expand southward and cover most of the lake by the end of the month. The exception will be the southeast portion of the lake where mostly open water with a few patches of new lake ice will prevail.

Lake Ontario

Much above normal temperature were observed during the last two weeks of December and the first few days of January. No significant ice was present except for some areas of new and thin lake ice in the Bay of Quinte and the entrance to the St Lawrence River.

Forecast ice conditions from January 6th to January 15th.

Below to much below normal temperatures are forecast for the first half of January. All of the Bay of Quinte will be covered in new and thin lake ice during the first week of January. By mid-month, the bay will be consolidated with thin and medium lake ice. The bays around Prince Edward County will have some new lake ice form during the second week of January. The entrance to the St Lawrence River and the northeastern shore of Lake Ontario will have new lake ice form during the second week of January. The rest of Lake Ontario will remain ice free.

Forecast ice conditions from January 16th to January 31st.

Below normal temperatures are forecast for the last two weeks of January. Ice in the bays around Prince Edward County will thicken to thin and medium lake ice by the end of the month. Areas of consolidated ice will begin to form in the St Lawrence River and the coastal area of northeastern Lake Ontario during the third week of January. By the end of January, all of the St Lawrence River as well as the small bays in northeastern Lake Ontario will be consolidated. Within 5 to 10 miles of the consolidated ice, the area of ice will be mostly thin and medium lake ice. Otherwise open water to ice free will prevail.

Lake Michigan

Very much above normal temperature were observed over the entire area during the last half of December and the first few days of January. Open water to ice free covered most regions except for consolidated ice in northern Little and Big Bay de Noc as well as new and thin lake ice in southern Green Bay.

Forecast ice conditions from January 6th to January 15th.

Below to much below normal temperatures are forecast for the first half of January. Significant ice growth and expansion will occur in Green Bay as well as the northern portion of the lake. By the middle on the month, most of Green Bay will be covered in new and thin lake ice with consolidated thin and medium lake ice in Little and Big Bay de Noc and southern Green Bay. The western and southern shore of Lake Michigan will have narrow bands of thin and new lake ice form during the later part of the second week of January. Some new lake ice will form in southern Grand Traverse Bay by midmonth. New lake ice will form shortly along the northern coast of Lake Michigan just west of the Straits of Mackinac and will expand southwards to reach Beaver Island by mid-January. Elsewhere open water and ice free conditions will prevail.

Forecast ice conditions from January 16th to January 31st.

Below normal temperatures are expected during the period. Consolidated areas of ice will expand northward from southern Green Bay and cover the southern half of the bay by the third week of January. The consolidated fast ice will continue to expand and cover most of the bay by the end of the month. The entrance to Green Bay will remain mobile with medium and thin lake ice. Narrow bands of thin lake ice will persist along the western and southern shore. Ice in Grand Traverse Bay will expand north during the last two weeks of January and thicken to thin lake ice with some medium lake ice in the southern portion of the bay. Ice in the northern portion of the lake west of the Straits of Mackinac will extend south of Beaver Island with mostly thin and medium lake ice. Areas of consolidated ice will form along the north shore of the lake during the third week. By the end of the month, the entire area just west of the Straits of Mackinac will be consolidated with medium and thin lake ice. Elsewhere mostly open water to ice free.

Figure 1: Ice forecast, Western Great Lakes – 15 January, 2004.

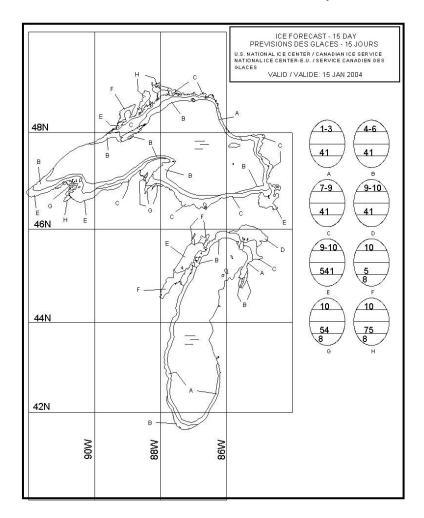


Figure 2: Ice Forecast, Western Great Lakes- 31 January, 2004.

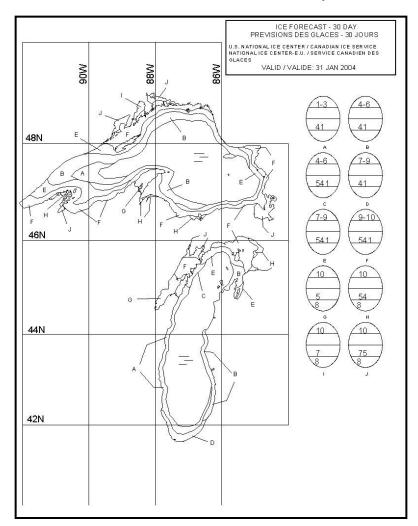
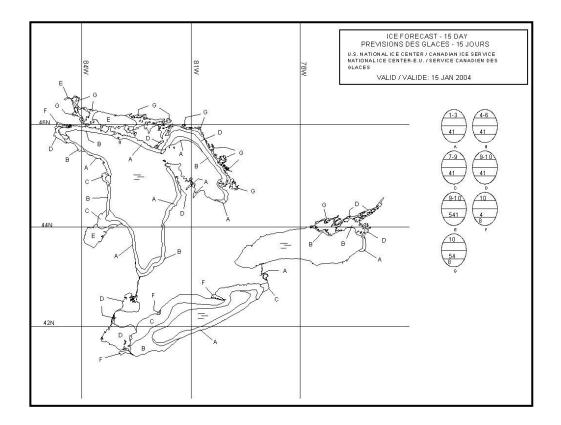


Figure 3: Ice Forecast, Eastern Great Lakes – 15 January, 2004.



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Figure 4: Ice Forecast, Eastern Great Lakes – 31 January, 2004

THE NEXT 30 DAY FORECAST WILL BE ISSUED ON 16 JANUARY 2004. END